

Latitude 39 20
39 17.30

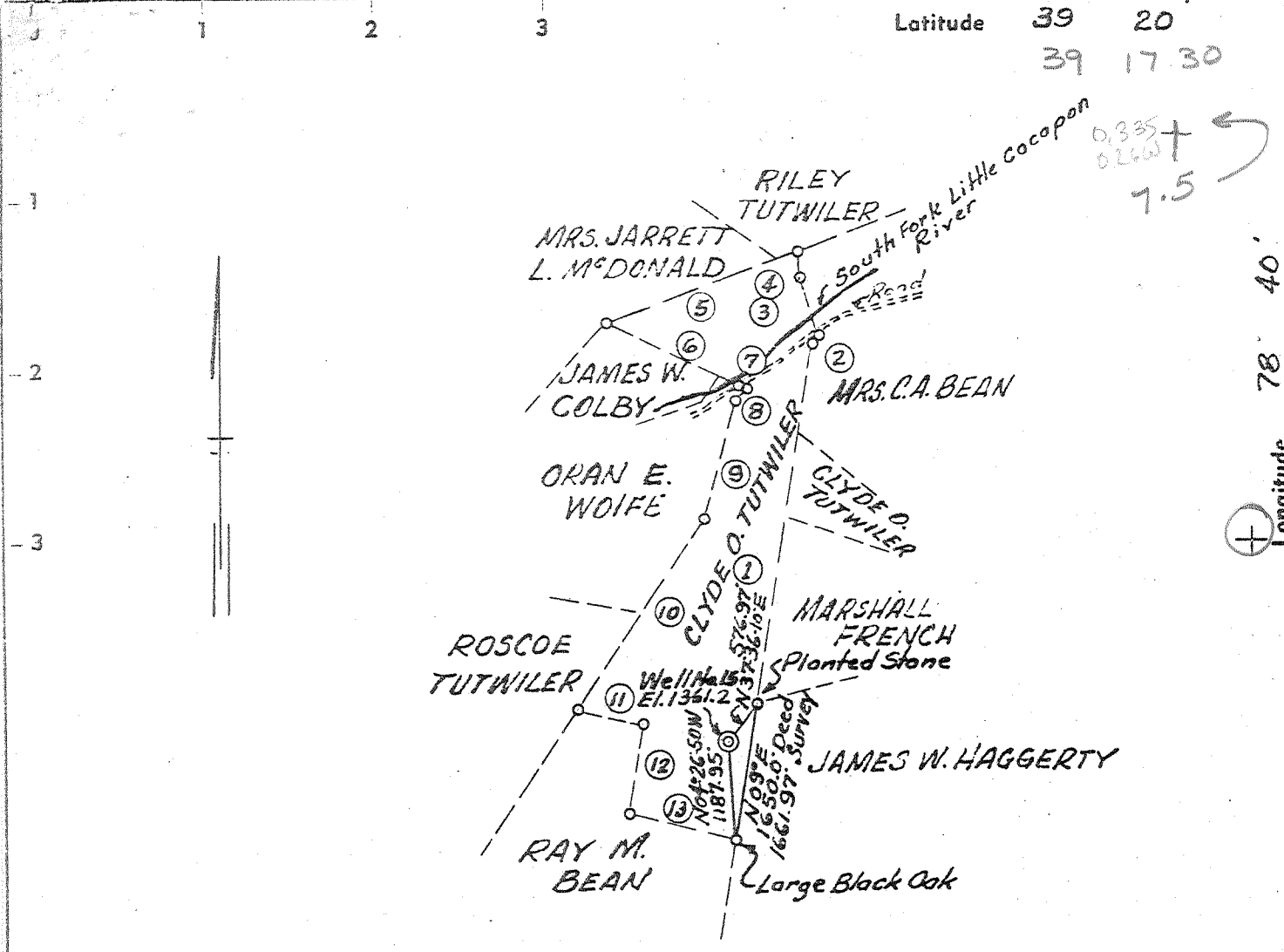


TABLE OF COURSES & DISTANCES

① N09°E	5923.50'	⑧ S42°00'W	148.50'
② N51°51'E	136.13'	⑨ S16°45'W	1468.50'
③ N18°00'W	693.00'	⑩ S33°00'W	2676.30'
④ NORTH	297.00'	⑪ S76°20'E	762.91' Calc.
⑤ S70°30'W	2442.00'	⑫ S11°00'W	1067.55'
⑥ S66°30'E	1749.00'	⑬ S75°00'E	1320.00'
⑦ S44°15'E	66.00'		

B.M. U.S.G.S.-H23(1921)
LATITUDE: 39°-17'-30"
LONGITUDE: 78°-38'-00"
HANGING ROCK QUADRANGLE

- New Location .
- Drill Deeper
- Redrill
- Abandonment

"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

3.21 S. 39°20'
0.26 W. 78°40'

9 EC(F17)

Company HAMPSHIRE GAS CO.
 Address 1100 H ST., WASHINGTON, D.C.
 Farm CLYDE O. TUTWILER
 Tract _____ Acres _____ Lease No. _____
 Well (Farm) No. 15 Serial No. _____
 Elevation (Spirit Level) 1361.2 *Augusta*
 Quadrangle HANGING ROCK - SW
 County HAMPSHIRE District SHERMAN
 Engineer _____
 Engineer's Registration No. 4231
 File No. _____ Drawing No. 65-16-15
 Date JUNE 7, 1965 Scale 1" = 2000'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. Ham-20
plugged 10/15/1965

— Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

— Denotes one inch spaces on border line of original tracing.

Sampler ?? 1310-6484' (25-D) Deep Well 6-0 289



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 3

Rotary
Spudder
Cable Tools
Storage

Try

Quadrangle Hanging Rock

WELL RECORD

Permit No. HAMP-20

Oil or Gas Well Oil (KIND)

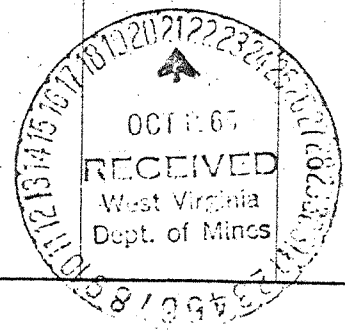
Company Hampshire Gas Company
Address 1100 H St., N. W., Washington, D. C.
Farm Clyde O. Tutwiler Acres 203⁺
Location (waters) South Fork of Little Cacapon
Well No. 15 Elev. 1361.2
District Sherman County Hampshire
The surface of tract is owned in fee by Clyde O. Tutwiler
Address Augusta, W. Va.
Mineral rights are owned by Clyde O. Tutwiler
Address Augusta, W. Va.
Drilling commenced August 28, 1965
Drilling completed October 14, 1965
Date Shot From _____ To _____
With _____
Open Flow /10ths Water in _____ Inch
/10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____
WELL FRACTURED _____

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13 3/8"		40'	
10 9-5/8"		1310'	Size of
8 1/4			Depth set
6 3/4			
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED 9-5/8" SIZE 1310 No. Ft. 9-4-65 Date
Cemented to surface
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

RESULT AFTER TREATMENT _____
ROCK PRESSURE AFTER TREATMENT _____
Fresh Water Yes Feet 55, 250, 1810 Salt Water Yes Feet 6462

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Clay	Yellow	Soft	0	20			
Shale Silty	M-Dk Gry	Soft	20	65	Water	55'	Fresh Water
Siltstone	Dk Gry -						
Streaky	Blk	Hard	65	150			
Sandstone & Siltstone,	Lt Gry -						
Shaly	Blk	Hard	150	1310	Water	250-275	Fresh Water
Shale Silty	M-Dk Gry	Med-Hard	1310	1930	Water	1810'	Fresh Water
Siltstone,	M-Dk Gry	Hard	1930	2005			
Shaly							
Sandstone & Siltstone,	M-Dk Gry	Hard	2005	2595			
Shaly							
Sandstone	M-Dk Gry	Hard	2595	2680			
Sandstone & Siltstone,							
Shaly	M-Dk Gry	Hard	2680	3000			
Shale Silty	M - Gry	Med-Hard	3000	3670			Oolitic Limesto Zone 3040'
Siltstone	Lt-M Gry	Hard	3670	3850			
Shale Silty	Med Gry	Med-Hard	3850	3900			
Siltstone	Med Gry	Hard	3900	3940			
Shale and Siltstone	Med Gry	Hard	3940	4320			
Interbedded							
Shale	Lt-M Gry	Soft	4320	5230			
Siltstone	Med Gry	Hard	5230	5280			
Shale and Siltstone	Lt-Dk Gry	Hard	5280	5590			
Shale, Trace of Siltstone	Dk Gry - Blk	Soft	5590	5720			



Formation	Color	Hard or Soft	Top ³	Bottom	Oil, Gas or Water	Depth Found	Remarks
Shale Marcellus	Blk	Soft	5720	5750			5720 top of Marcellus Shale
Shale Marcellus	M-Dk Gry	Soft	5750	5850			
Shale Marcellus	Blck	Soft	5850	6085			
Metabentonite	Brn	Soft	6085	6085			6085 Top of Needmore Shale
Shale and Limestone	Dk Gry to Black	Soft	6085	6145			
Needmore Shale	Med-Gry	Soft	6145	6295			
Needmore Shale	Med-DkGry	Soft	6295	6368			6368 Top of Oriskany Sands
Needmore Sandstone	White						
Oriskany	M Gry	Hard	6368	6485	Salt Water	6462	6485 T.D.

475

Date October 18, 196
 APPROVED Shamshire Gas Co.
 By Harry J. Ketchum Jr. - Pres.
 (Title)
Holbrook Gas Production & Storage